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EXAMINER

PATTERSON, MARC A

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| ART UNIT | PAPER NUMBER |
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1772

DATE MAILED: 10/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/030,095

Applicant(s)

SUZUKI, KEITA

Examiner

Marc A Patterson

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 August 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-8 and 10-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-8 and 10-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

WITHDRAWN REJECTIONS

1. The 35 U.S.C. 112 second paragraph rejection of Claims 4 – 8, of record on page 2 of the previous Action, is withdrawn.

The 35 U.S.C. 103(a) rejection of Claims 4 – 8 as being unpatentable over Yokoe et al (U.S. Patent No. 5,919,326), of record on page 4 of the previous Action, is withdrawn.

NEW REJECTIONS

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 4 – 8 and 10 – 12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The term ‘fractional’ is indefinite as its meaning is unclear. For purposes of examination, the term will be assumed to refer to any layer.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 4 – 6 and 10 – 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter (U.S. Patent No. 5,891,373) in view of Spohn (U.S. Patent No. 6,127,478).

With regard to Claims 4 – 5 and 10, Hunter discloses a multi – layer resin tube used as a fuel tube for automobiles (column 1, lines 8 – 20) comprising a body layer of a thermoplastic resin (outer layer; column 2, lines 6 – 19) and a layer inside the body layer comprising a plurality of layers (multi – layer adhesive layer comprising the same components, therefore both adhesive components; column 2, lines 30 – 53) comprising an outermost layer attached to the inside surface of the body layer (column 2, lines 20 – 29) and an innermost layer including the inside surface of the multi – layer resin tube (it is bonded directly to, and therefore includes, the layer which comprises the inside surface of the tube; column 2, lines 35 – 53), the layers having two components and the outermost layer having one component at a higher concentration than the innermost layer and the other component at a lower concentration than the innermost layer (the components are fluoropolymer and nylon; column 2, lines 35 – 53). Hunter fails to disclose an inside layer which is a barrier layer.

Spohn teaches the use of a layer which is a blend of fluoropolymer and nylon (column 2, lines 18 – 49) which is a barrier layer (column 4, lines 5 – 18) for the purpose of making a fuel hose which is resistant to chemical attack (column 5, lines 35 – 44). The desirability of providing for an inside layer which is a barrier layer in Hunter, which is a fuel hose, would therefore be obvious to one of ordinary skill in the art.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for an inside layer which is a barrier layer in

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Hunter (therefore a multi – layer barrier comprising two barrier components) in order to make a fuel hose which is resistant to chemical attack as taught by Spohn.

With regard to Claim 6, the layer which is taught by Spohn comprises an ethylene tetrafluoroethylene which is modified (column 5, lines 45 – 63).

With regard to Claims 11 – 12, Hunter fails to disclose an outermost layer having the barrier component at 1 – 10% by weight and innermost layer having the adhesive component at 0.5 to 3% by weight. However, Hunter discloses an outermost layer having the barrier component at 40% by weight and innermost layer having the barrier component at greater than 40% by weight (column 2, lines 20 – 29). Therefore, the concentrations of the components in the layers would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end use of the product. It therefore would be obvious for one of ordinary skill in the art to vary the concentrations of the components in the layers, since the concentrations of the components in the layers would be readily determined through routine optimization by one having ordinary skill in the art depending on the desired end result as shown by Hunter, in the absence of unexpected results. *In re Boesch and Slaney*, 205 USPQ 215 (CCPA 1980).

6. Claims 7 – 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hunter (U.S. Patent No. 5,891,373) in view of Spohn (U.S. Patent No. 6,127,478) and further in view of Yokoe et al (U.S. Patent No. 5,919,326).

Hunter and Spohn disclose a fuel hose comprising a barrier layer as discussed above. Hunter and Spohn fail to disclose a barrier layer comprising conductive carbon black.

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Yokoe et al teach the use of a barrier layer comprising conductive carbon black in a fuel hose (column 5, lines 19 – 35) for the purpose of obtaining a hose which dissipates static charge (column 5, lines 19 – 35). The desirability of providing for a barrier layer comprising conductive carbon black in Hunter, which is a fuel hose, would therefore be obvious to one of ordinary skill in the art.

It therefore would have been obvious for one of ordinary skill in the art at the time Applicant's invention was made to have provided for a barrier layer comprising conductive carbon black in Hunter and Spohn in order to obtain a hose which dissipates static charge as taught by Yokoe et al.

ANSWERS TO APPLICANT'S ARGUMENTS

7. Applicant's arguments regarding the 35 U.S.C. 112 second paragraph rejection of Claims 4 – 8 and 35 U.S.C. 103(a) rejection of Claims 4 – 8 as being unpatentable over Yokoe et al (U.S. Patent No. 5,919,326), of record in the previous Action, have been considered and have been found to be persuasive. The rejections are therefore withdrawn. The new 35 U.S.C. 103(a) rejection of Claims 4 – 6 and 10 – 12 as being unpatentable over Hunter (U.S. Patent No. 5,891,373) in view of Spohn (U.S. Patent No. 6,127,478) and 35 U.S.C. 103(a) rejection of Claims 7 – 8 as being unpatentable over Hunter (U.S. Patent No. 5,891,373) in view of Spohn (U.S. Patent No. 6,127,478) and further in view of Yokoe et al (U.S. Patent No. 5,919,326) are directed to amended Claims 4 – 8 and newly submitted Claims 10 – 12.

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8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marc Patterson, whose telephone number is (703) 305-3537. The examiner can normally be reached on Monday through Friday from 8:30 AM to 5:00 PM. If attempts to reach the examiner by phone are unsuccessful, the examiner's supervisor, Harold Pyon, can be reached at (703) 308-4251. FAX communications should be sent to (703) 872-9310. FAXs received after 4 P.M. will not be processed until the following business day.

Marc A. Patterson, PhD.
Marc Patterson
Art Unit 1772


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

10/18/03